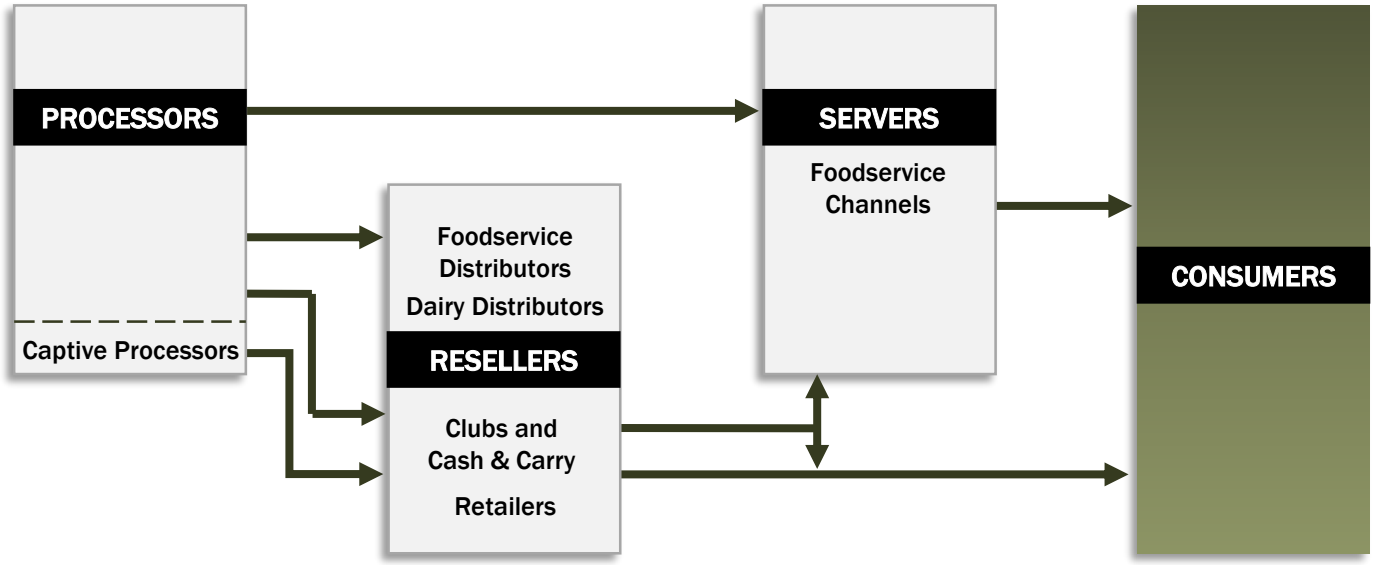
ALL CHANNEL TRACKING

Focus on School Channel

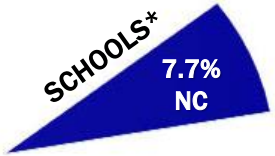
2017 Edition
September 2018

Scope & Approach

The scope of this project included all Class I fluid milk sales across the United States, as reported by the Department of Agriculture. The channel-specific projection of milk sales in gallons was achieved through a multi-pronged approach involving data collection, and analysis from each of the major points in the fluid milk supply chain.



The School Channels Represents 7.7% of Milk Sales



* *2008-09 was the high water year with volume at 470 MM for K-12, 2017-18 year was 402 MM, -68 MM*

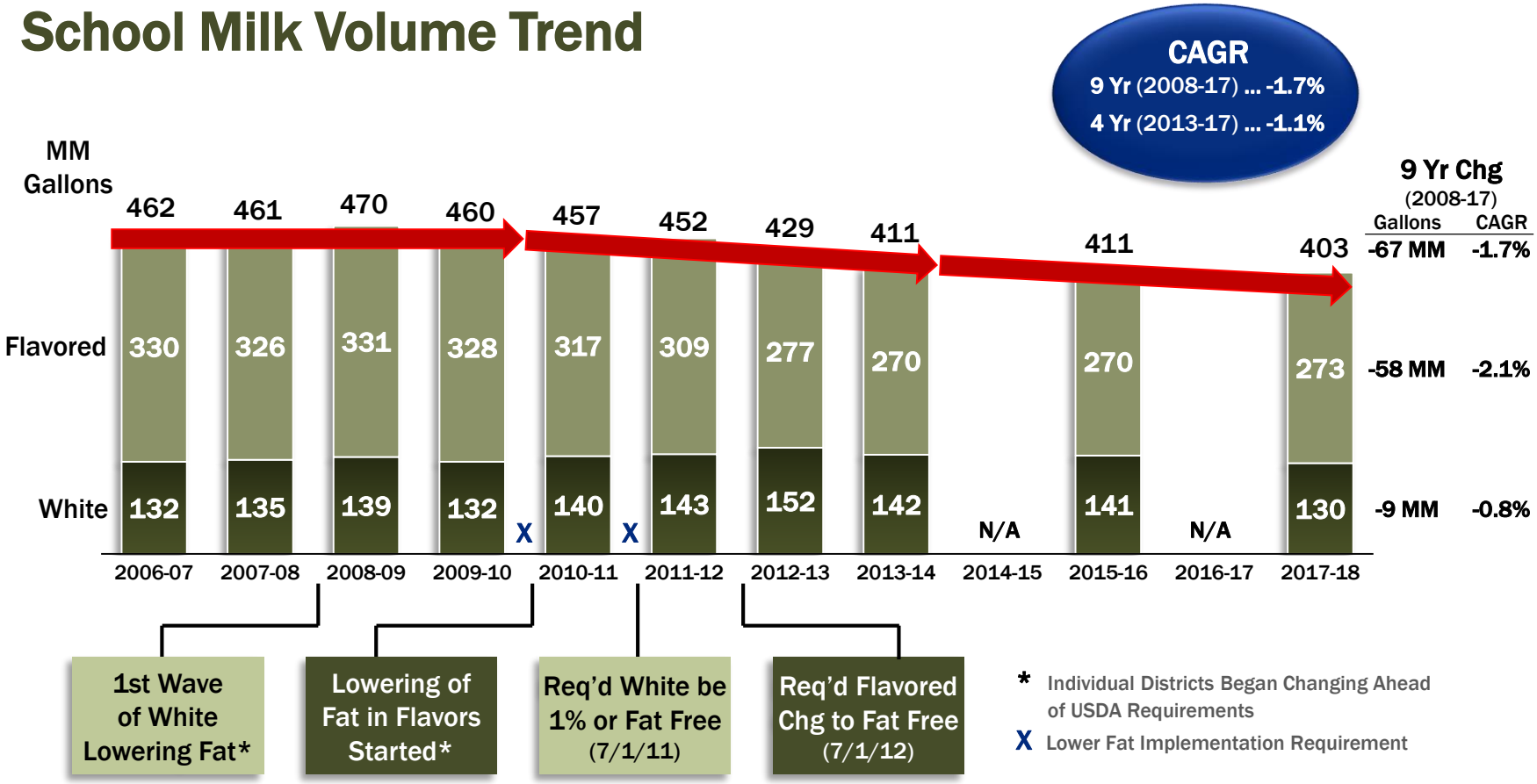
	2013		2015		2017		Absolute Change vs. '13	4 Yr CAGR
	MM Gal	% of Milk	MM Gal	% of Milk	MM Gal	% of Milk	MM Gal	
K-12	420.0	7.0%	411.0	7.1%	403.0	7.2%	-17.0	-1.0%
Pre-School/ Daycare	28.8	0.5%	29.0	0.5%	28.0	0.5%	-0.8	-0.7%
448.8	**7.5%**	**440.0**	**7.6%**	**431.0**	**7.7%**	**-17.8**	**-1.0%**

The school channel includes K-12 schools plus preschool/daycare as a separately reported segment.

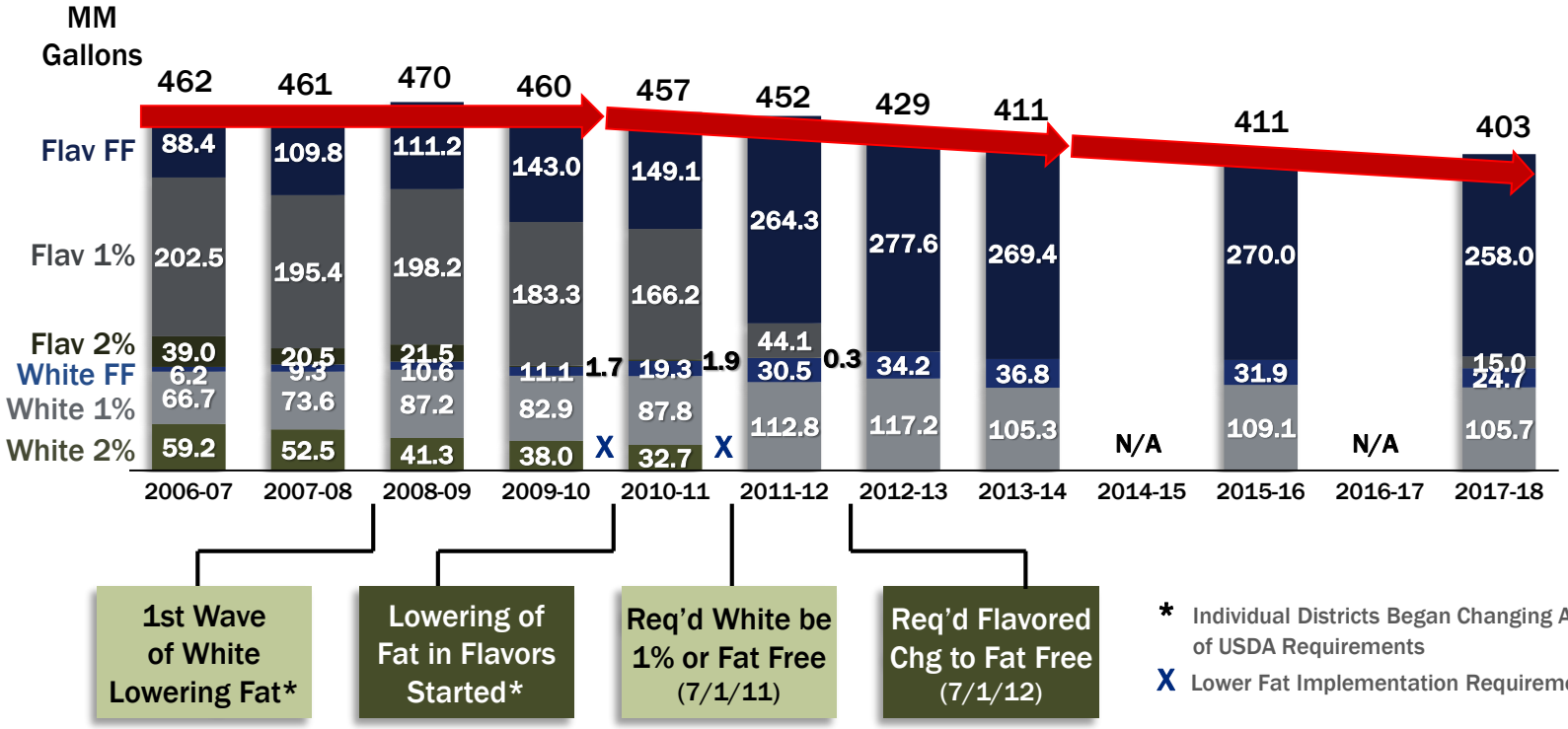
Milk sales to schools for the 2017 calendar year were 403 MM gallons, -2% or -9 MM gallons over two years ago.

This is the 10th year of the processor survey conducted for MilkPEP by Prime. 25 processors (with ~100 plants), who collectively serve nearly 62,000 (65%) of K-12 schools directly, contributed information to enable the volume projections and analysis. These processors also provide product to distributors who deliver to an estimated additional 15-20% of schools.

School Milk Volume Trend



School Milk Volume by Flavor



Reintroduction of 1% flavors contributed 15mm gallons.

* Individual Districts Began Changing Ahead of USDA Requirements

X Lower Fat Implementation Requirement

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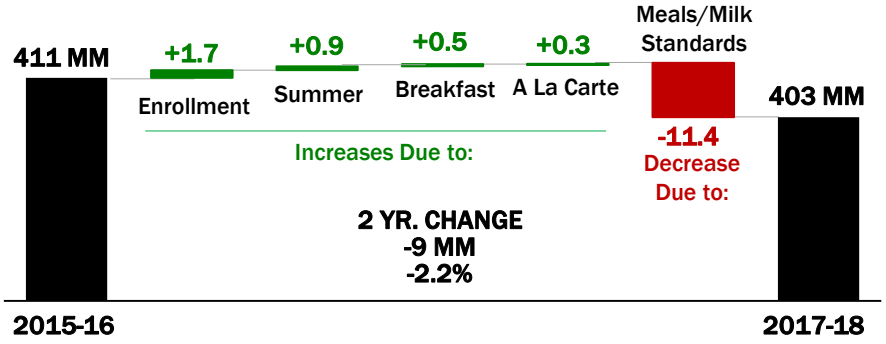
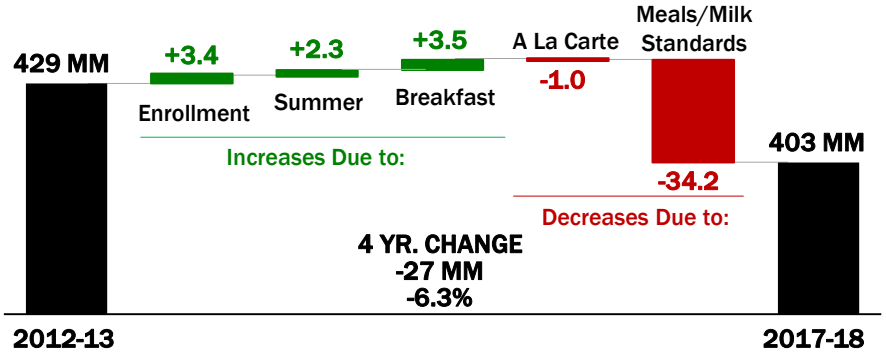
Meal/Milk Standards Continues to Drive Milk Decline

Over the past two years (2015-16 to 2017-18), milk volume in schools declined 1.9%, or 8 MM gallons. Increases in enrollment, breakfast participation, summer feeding and a la carte contributed an incremental 3.4 MM gallons.

The combination of declining lunch participation and structural changes in the school feeding programs (meal standards, lowing of milk fat levels, fruit & vegetable priority, etc.), resulted in a loss of 11.4 MM gallons over the past two years. Over five years, the loss totals 34.2 MM gallons (547.2 MM servings), roughly 11 servings per student.





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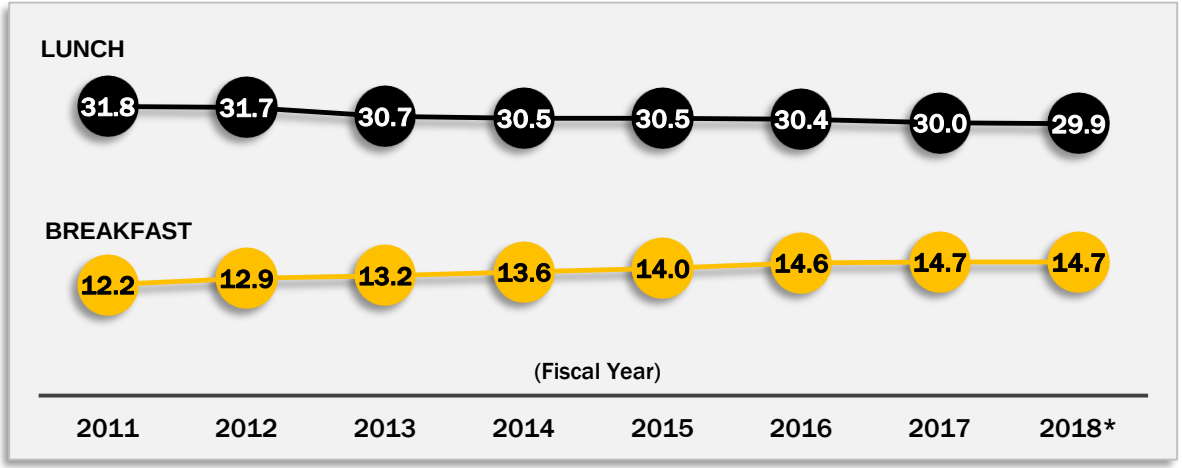
Meal Participation Changes

Lunch participation has continued to decline, to under 30MM/day for the first time, as students have not embraced the new meal standards/ menus.

Breakfast growth has slowed to just 1% this past year.



CAGR
6 Yr (2011-17)
LUNCH -1.0%/Yr
BREAKFAST +3.2%/Yr

*Oct-Apr

Lunches served declined by 1.9 MM per day over the past 6 years.

Breakfasts served grew 2.5 MM per day over the past 6 years.

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Source: USDA National Databank

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Weekly Milk Servings per Student & Current Potential

DEFINITIONS

Weekly milk servings per student is the simplest and most comprehensive measure of milk development. The calculation is as follows:

$$\text{Weekly Milk Servings per Student} = \frac{\text{Milks Used in a Week}}{\text{Students at the School/District}}$$

Schools/processors can compare their current performance against calculated "current potential." A school/district's potential is defined as the number of potential milk servings at lunch (5 per week), plus breakfast (adjusted for participation).

$$\text{Potential for Milk Servings} = \frac{5}{\text{Lunches per Week}} + \left[\frac{5}{\text{Breakfast per Week}} \times \frac{\quad}{\%\ \text{Served}}\right] = \frac{\quad}{\text{Current Potential}}$$

Processors are encouraged to evaluate and identify growth opportunities within their school customers using these metrics.

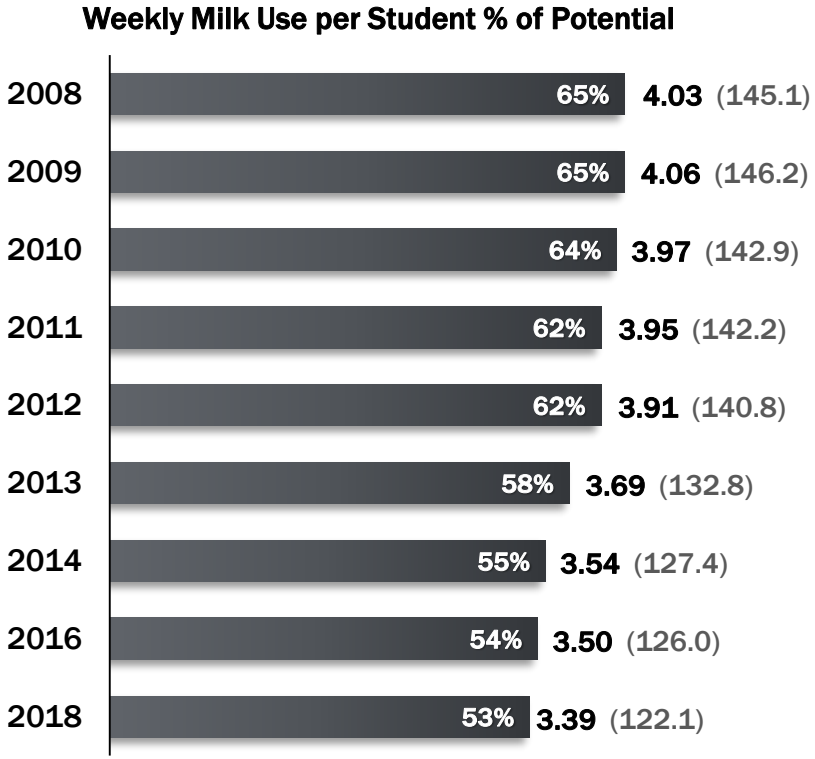
Weekly Milk Usage

The average student used 3.39 milks (8 oz) per week during the 2017-2018 school year, a decrease of 3.1% over two years. While volume was -144 MM servings (-1.9%), enrollment grew 220 M students, thus the fewer milks per student.

3.39 milks across the average of 6.45 meals per week means only 53% of meals have a milk.

This equates to 122 milks per school year across the 232 meals (across breakfast and lunch) eaten at school.

The nine year decline since the limits on milk fat levels went into effect, translates into the average student using 23 fewer milks each school year. That is one full month of lunches without milk.



Current Performance vs. Potential

Nationally, 53% of the potential was realized in 2017, -1 point vs. two years ago.

Actual weekly milk servings per student were 3.39 (3.50 two years ago), vs. 4.4 meals served, and a current potential of 6.45 servings per week.

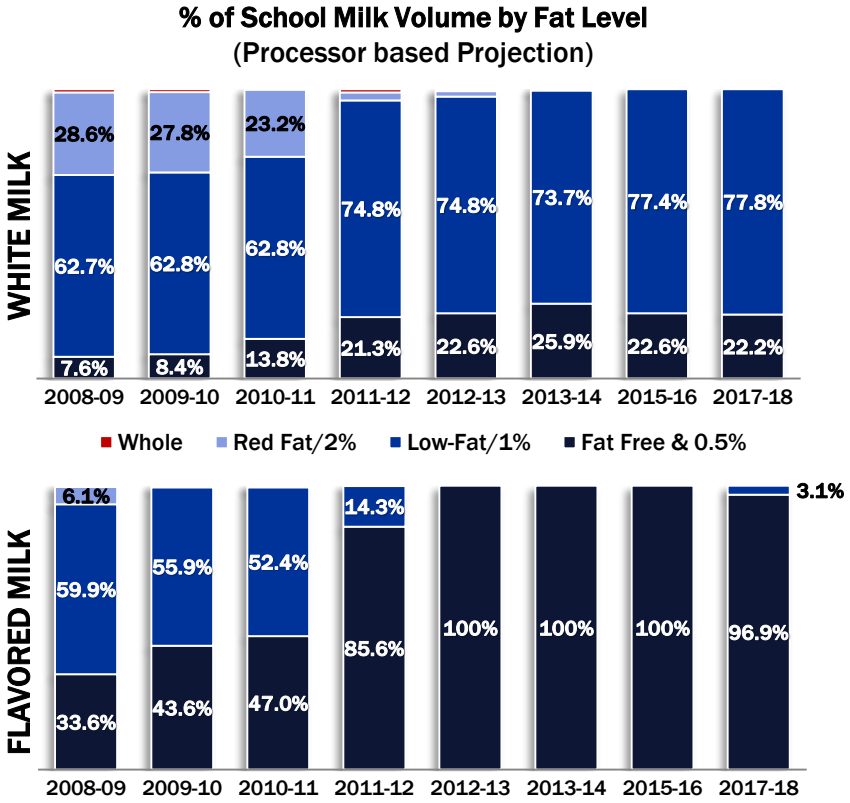
*Including Brownbag & A La Carte

Meal Standards Drove Fat Level Changes

White milk offerings are low-fat/1% or fat free/skim. The new meal standards drove the elimination of reduced fat/2% white by the start of the 2011-12 school year.

This is the first year under the relaxed meal standards for flavored milk, which allows states to grant waivers allowing the requesting districts to serve 1% flavors. A small portion of the schools have sought waivers, though some states are resisting the USDA guidance and waiver policy.

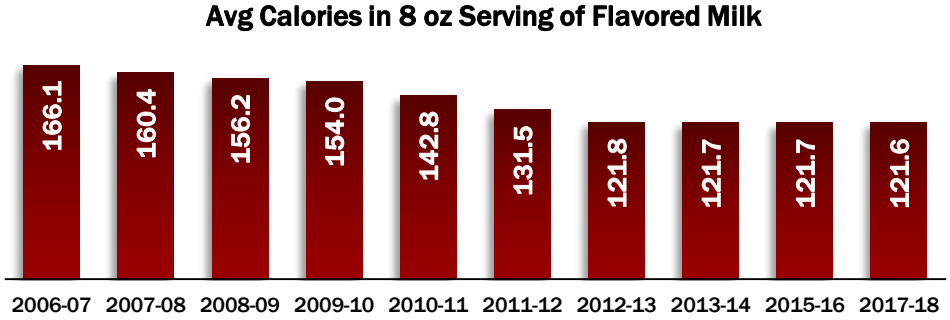
Even so, 3.1% of flavored milk was 1% during the year.



Flavored Milk in Schools has 44 Fewer Calories than a Decade Ago

The average flavored milk serving in schools has remained just under 122 calories since 2012-13.

Flavored milk was only 25 calories more than the white milk in schools.



Average Calories per 8 oz of Milk in Schools (by School Year)											
	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2015-16	2017-18	9 Yr Change
White	110.8	107.8	106.2	105.8	104.3	97.9	97.4	96.3	96.6	96.7	-14.1 Calories -13%
Flavored	166.1	160.4	156.2	154.0	142.8	131.5	121.8	121.7	121.7	121.6	-44.4 Calories -27%
TOTAL	**150.0**	**144.1**	**141.2**	**140.0**	**131.0**	**120.9**	**113.3**	**113.0**	**113.1**	**113.5**	**-37.0 Calories -25%**

Added Sugar has Declined Over 50% in School Chocolate Milk

The sugar level in chocolate milk has declined over 9 grams per serving over the past decade.

Added sugar has declined from 16.7 grams to 7.5 grams, while the sugar in cow's milk (lactose) has not changed (~12 grams per serving).